

## QA55 – Feeding after NEC

### QUESTION:

I have a question regarding appropriate feeds after an incidence of NEC in the nursery. I have read in the “Nutritional Care in High Risk Newborns,” that once enteral feeds are restarted, breast milk is generally well tolerated. However, in our nursery, in which almost all moms pump, the doctors order Pregestimil for about the first week. What is the most appropriate enteral feed to start after NEC?

### ANSWER:

Although NEC may occur in term infants, it is more often a complication of prematurity. The infant with NEC may demonstrate evidence of feeding intolerance, abdominal distention, and bloody stools. Radiographic signs characteristic of GI damage including pneumatosis and/or perforation are diagnostic. An infant with evidence of NEC is initially placed NPO, antibiotics are started and the patient is supported parenterally for a designated time period. This is referred to as medical management.

If the infant requires surgery, however, the choice of milk or formula will depend on the site and extent of GI resection. Loss of colon will impact fluid and electrolyte balance. The infant may not need a special formula. Loss of small amounts of ileum may or may not impact feeding tolerance. When an infant loses large amounts of colon, the infant may have difficulty handling long chain fats, and in some cases may be sensitive to carbohydrate (including lactose).

The choice of formula therefore will be selecting a milk or formula that meets the fat/carbohydrate tolerance of the individual infant balanced with meeting nutrient needs. Pregestimil doesn't meet the vitamin/mineral needs of VLBW infants. Preterm formula will meet vitamin and mineral needs and is 50% medium chain fats (similar to Pregestimil) and 50% lactose. Breastmilk is easier to digest and the bioavailability of some nutrients is better compared to formula. Some infants may tolerate breastmilk or a premature formula.

Infants who do not tolerate these choices may need a modification of feeding. Modification includes delivery of feeding (i.e. drip may be tolerated better than bolus and absorption improved). If tolerance continues to be an issue, you may need to try another formula (such as Pregestimil) knowing that additional supplements may be necessary to meet vitamin and mineral needs. Evaluation of the individual patient for site of resection, fluid balance, and tolerance of individual components (ie fat) should direct changes and choice of formula for such an infant.

Reference:

- 1) Groh-Wargo S, Thompson M, Cox JH. Nutritional Care for High-Risk Newborns. revised 3<sup>rd</sup> ed. Precept Press, 2000.